

Digital Learning: What the Research Says

Part 3 of a 4 Part Series

Digital learning is different from traditional learning. Providing opportunities for students to learn digitally through virtual instruction, in a blended setting, or through a hybrid model requires an approach that manages those differences.

Educators must understand how and why some online teaching and learning strategies are more successful than others. This understanding allows us to design high-quality learning experiences for our students, ensuring they're mastering the fundamental knowledge and skills that lay the foundation for future success.

This four-part research series summarizes and shares key points from relevant research on digital learning, including research from before the COVID-19 pandemic and now. To best support students, actionable improvements to instruction are needed.

This third installment reviews the literature on assessment and measurement, as well as diverse and equitable instruction in an online environment.

Assessment and Measurement

- Assessing learning in a virtual setting can take a variety of different formats and must seek to be as authentic as possible.
- Opportunities for formative feedback, reflection, and revision strongly enhance learning. Examples of this include providing comments on assignments and opportunities to redo.
- Provide students with the opportunity to review and revise their thinking on assessments. Students who are given the opportunity for additional practice on items answered incorrectly performed better over time than those who simply received scores identifying the number of correct or incorrect responses. (Darling-Hammond et al., 2020)
- The goal of both in person and virtual discussion is for learners to engage in reflection, investigation, and application of core course concepts. This dialogue serves as a way for teachers to assess how well students understand the content in real time. (Alrushiedat & Olfman, 2013)

Diverse and Equitable Instruction

- When providing virtual options, schools must consider all students' access to technology, including high-speed internet. Schools must also ensure that they are serving learners of all abilities.
- Issues of equity should be considered at the center of digital learning and increased guidance should be given for special populations. (Reich et al., 2020)
- Digital equity begins with access to devices and connectivity. It is important to provide professional development to teachers when a school has limited access to technology staff. (Zalaznick, 2020)
- The principles of [Universal Design for Learning](#), when applied, can benefit all learners. Universal Design for Learning can increase student performance, engagement, satisfaction, and learning flexibility. The use of technology can promote the application of Universal Design for Learning and plays a valuable role. (Al-Azawei et al., 2017)

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Darling-Hammond, L., Edgerton, A. K., Truong, N., & Jr, P. W. C. (2020). *Restarting and Reinventing School: Learning in the Time of COVID and Beyond*. 12.

Reich, J., Buttner, C. J., Fang, A., Hillaire, G., Hirsch, K., Larke, L. R., Littenberg-Tobias, J., Moussapour, R. M., Napier, A., Thompson, M., & Slama, R. (2020). *Remote Learning Guidance From State Education Agencies During the COVID-19 Pandemic: A First Look*. EdArXiv. <https://doi.org/10.35542/osf.io/437e2>

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